

Title (en)

LED LIGHT FOR HEADGEAR

Title (de)

LED-LAMPE FÜR KOPFBEDECKUNG

Title (fr)

LUMIERE DEL POUR HARNAIS

Publication

**EP 1644662 B1 20071114 (EN)**

Application

**EP 04742189 A 20040712**

Priority

- FI 2004000446 W 20040712
- FI 20031059 A 20030711

Abstract (en)

[origin: WO2005005882A1] A unitary illuminator module comprises several ultraviolet (UV) or infrared (IR) LEDs (4) fitted in a common rectangular connector (3) sequentially, and directed towards a target object and/or area. A frame including the connector comprises two frame components (1,2) folded one over the other and is attached to a headgear by snap-on fasteners (7).

IPC 8 full level

**F21V 21/08** (2006.01); **A42B 1/24** (2006.01); **A42B 3/04** (2006.01); **F21V 15/01** (2006.01); **F21V 21/088** (2006.01)

CPC (source: EP US)

**A42B 1/244** (2013.01 - EP US); **A42B 3/044** (2013.01 - EP US); **F21V 15/01** (2013.01 - EP US); **F21V 21/0885** (2013.01 - EP US);  
**F21Y 2115/10** (2016.08 - EP US)

Citation (examination)

- US 5836673 A 19981117 - LO ROBIN [US]
- WO 0244611 A1 20020606 - HENNIG WOLFRAM [DE], et al
- US 6390640 B1 20020521 - WONG KEVIN [US], et al
- US 6634031 B1 20031021 - SCHLAPKOHL THOMAS P [US]
- US 5541816 A 19960730 - MISERENDINO NICHOLAS G [US]
- US 5485358 A 19960116 - CHIEN TSENG L [TW]

Cited by

EP1639294A4; USD917608S

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DE 602004010128 D1 20071227; DE 602004010128 T2 20080904; EP 1644662 A1 20060412; EP 1644662 B1 20071114;  
FI 117487 B 20061031; FI 20031059 A0 20030711; FI 20031059 A 20050112; US 2006158869 A1 20060720; US 7784960 B2 20100831

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